APRIL/MAY 2024

GAM41/DAM41 — RECOMBINANT DNA TECHNOLOGY

Time: Three hours

Maximum: 75 marks

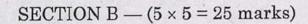


SECTION A — $(10 \times 2 = 20 \text{ marks})$

Answer ALL the questions.

Who coined the term biotechnology?

- 2. Who discovered the restriction enzymes?
- 3. Define palindrome.
- 4. What is Ligation?
- 5. What is probe?
- 6. Define cloning.
- 7. Name the source of polymerase used for PCR.
- 8. Which buffer is used in PCR?
- 9. Define pituitary dwarfism.
- 10. What are the two types of hygiene?



Answer ALL the questions.

11. (a) Give a brief note on M13 phage.

Or

- (b) Explain the general properties of plasmids.
- 12. (a) Describe in brief about the nomenclature of restriction enzymes.

Or

- (b) Comment on DNA ligase enzyme.
- 13. (a) Write in brief about nucleic acid hybridization.

Or

- (b) Give an account on the construction of genomic library.
- 14. (a) What is RAPD? Describe briefly its procedure.

Or

(b) Write about gradient PCR.

(b)

Or

Briefly describe the various approaches for the production of virus resistant transgenic plants.

SECTION C — $(3 \times 10 = 30 \text{ marks})$

Answer any THREE questions.

- 16. Define Cosmids. Discuss in detail about its construction.
- 17. Write elaborately the function of different types of DNA polymerases.
- 18. Explain in detail the western blotting technique.
- 19. Discuss about polymerase chain reaction.
- 20. Write an essay on recombinant vaccines.